Exhibit 10

Excerpts of June 30, 2014 G. Bowen Deposition Transcript

GLENN BOWEN

IN THE UNITED STATES BANKRUPTCY COURT
FOR THE EASTERN DISTRICT OF MICHIGAN

In re) Chapter 9
CITY OF DETROIT, MICHIGAN,) Case No. 13-53846
Debtor.) Hon. Steven W. Rhodes

The Video Deposition of GLENN BOWEN, VOLUME I,
Taken at 1114 Washington Boulevard,
Detroit, Michigan,
Commencing at 9:05 a.m.,
Monday, June 30, 2014,
Before Rebecca L. Russo, CSR-2759, RMR, CRR.

GLENN BOWEN

APPEARANCES:

EVAN MILLER, ESQ.,
MIGUEL F. EATON, ESQ.
Jones Day
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Appearing on behalf of the Debtor.

CLAUDE D. MONTGOMERY, ESQ.
Dentons US LLP
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Appearing on behalf of the Retiree Committee.

GLENN BOWEN

JENNIFER K. GREEN, ESQ.,
RONALD A. KING, ESQ. (Lansing office)
Clark Hill, PLC
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Detroit, Michigan 48226
Appearing on behalf of the Retirement Systems for the City of Detroit.

RICHARD U. S. HOWELL, ESQ.
Kirkland & Ellis LLP
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Appearing on behalf of Syncora Guarantee Inc. and Syncora Capital Assurance Inc.

GLENN BOWEN

MARK R. JAMES, ESQ.
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Appearing on behalf of the Financial Guaranty Insurance Company.

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Appearing on behalf of the State of Michigan.

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calls, Heather Lennox, Mary Reil. Also on the pension task force was Conway MacKenzie, Chuck Moore of Conway MacKenzie.

There's some other attorneys who I didn't have as much interaction with that would join the calls, and I can't recall their names now, for whatever reason.

Q. Fair enough. Anyone else that you can recall being on the pension task force when it was created?
A. I can't, I can't recall anything other than there were some other people who I can't recall.
Q. And can you recall anyone that was added to the pension task force after the time it was created, up until today?
A. I don't believe it was expanded.
Q. Would it be fair to say that this July 6th letter summarized your results related to that initial assignment that you talked about a couple minutes ago?
A. Yes.
Q. And so this was reviewing the Gabriel Roeder Smith valuation, putting it into laymen's terms, and explaining issues that you saw with that to the City of Detroit, correct?
A. That is correct.

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Q. I just want to ask a couple of questions about a few of the points listed in this letter.

First, do you see on the first page, the one ending in Bates 260505, about halfway down the page there's a paragraph that begins: Based on a preliminary review of the June 30, 2010, actuarial valuation reports for the General Retirement System for the City of Detroit, (DGRS), and the Police and Fire Retirement System for the City of Detroit, (PFRS), we have the following high-level recommendations.

Do you see that?
A. Yes, I do.
Q. And the first recommendation there is: Remeasure assets and liabilities using unbiased assumptions.

Do you see that?
A. I do.
Q. Do you recall what you meant when you used the term unbiased assumptions?
A. Our overall take on the liabilities that were being generated was that there was optimism within that measurement, and we thought it worthwhile to alert the city that should things not turn out in the future to be as optimistic as is being anticipated in the

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valuation report, losses will occur, costs will increase over time.
Q. Does the term biased then refer to a bias towards optimism?
A. In this case, it did, yeah.
Q. One of the biased assumptions that you referred to is a demographic assumption relating to mortality rates, correct?
A. Yes, mortality is mentioned in here.
Q. And in this letter, Milliman makes an adjustment to the liability to increase it by ten percent as an adjustment to reflect unbiased mortality rates. Is that correct?
A. In this letter that adjustment was made.
Q. Were there other demographic assumptions that you can recall at this time that you felt were biased, besides the mortality rates, at the time you put together this July 6th letter?
A. We did not include any others in this letter.
Q. Subsequent to issuing this letter, have you formed an opinion that there are any other demographic assumptions in the work done by Gabriel Roeder Smith that are biased assumptions?
A. We have not studied them in detail nor formed that

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opinion subsequently.
Q. On the second page of this letter, in the bottom section, it's a review of asset allocation. Do you see that?
A. Yes.
Q. And in this letter, Milliman writes: We have not received the current asset allocation or investment policy yet, so we have based this analysis on the assumption that the systems use a 60 percent equity and 40 percent fixed income allocation.

You see that, right?
A. I do see that.
Q. Now, you later determined that that 60/40 equity to fixed income allocation was incorrect for the PFRS and GRS actual asset allocations, correct?
A. Later we were provided with the actual, and we used that instead of making an educated guess as to what it might be.
Q. Were you ever provided with the investment policy of the GRS?
A. We did receive the investment policy at some point in time, yes.
Q. Were you -- did you ever receive the investment policy of the PFRS?

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A. I'm not sure, thinking back, if there was one policy or two policies, but I believe we did ultimately receive information on both systems.

Q. Then on the next page of the July 6th letter, you used the 60/40 estimate because you didn't yet have the actual asset allocation to come up with an investment return expectation, correct?

A. In this letter, we used 60/40, yes.

Q. And an investment return assumption is a function of the asset allocation that you use along with your own capital market assumptions, correct?

A. That is correct.

Q. And at the time you put this letter together, you recommended a long-term expected investment return of 6.75 percent for a 60/40 portfolio, correct?

A. That is correct.

Q. And that was, again, based on a 60/40 asset allocation, correct?

A. That is correct.

Q. In the next paragraph of the letter, you say that DGRS, which I've been referring to as GRS, employed an assumed rate of 7.9 percent and PFRS employed an assumed rate of eight percent.

Both of these rates are above what we would

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consider to be the top end of our reasonable range, and we would expect that there's a less than one in four likelihood of meeting these assumptions.

Do you see that?

A. I do.

Q. Can you explain to me the concept of a reasonable range?

A. Certainly. The actuarial standard of practice number 27 deals with selection of investment return assumptions or selection of economic assumptions. While the expected return is characterized as a single number for purposes of discounting future cash flows, there's a variability in expected returns, and that variability will obviously cause actual returns to deviate in future years.

What we do is take a look at the correlation of movement between the various asset classes, and we can look at it over a shorter or longer period of time, and develop what we call a range of results. So the number that you see, the 675, represents the 50th percentile return. Half the time we expect the long-term return to exceed that. Half the time we would expect it to fall short of that.

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The -- actually, now it's an outgoing standard of practice. The outgoing standard of practice that was then current and is still current for several more months says you want the range within -- the range within which the expected return is more likely than not to fall. So our interpretation of that has been the 25th to 75th percentile return, which is a 50 percent -- 50 percent of all of possibilities centered around the median return.

And that range is -- while the, over the long term, the 50th percentile return is expected to stay the same, the range around that mean will shrink as you go out multiple decades, which is the appropriate measurement for a pension plan which pays benefits over multiple decades.

So when I say there's a less than one in four chance of meeting that assumption, based on our capital market assumptions and based upon the 60/40, you know, proxy portfolio used in this analysis, the 7.9 and eight percent were above the 75th percentile, thus less than one in four chance of occurring.

Q. So when determining a reasonable range, you used the 25th percentile as the low end of the reasonable range

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and the 75th percentile as the high end of the reasonable range, correct?

A. That's correct.

Q. When you talk about your capital market assumptions at Milliman, those capital market assumptions at any given point in time would be the same for all clients, correct?

A. The assumptions are the assumptions at a given point in time, yes.

Q. And Milliman updates its capital market assumptions every December 31st and June 30th, correct?

A. That is correct.

Q. So, in fact, today is the day of updating the capital market assumptions?

A. We should have something by this afternoon. No, I don't know when it will occur, but, yes.

Q. Do you have a -- well, strike that.

Is part of the reason for having a reasonable range that a pension plan has to invest according to a prudent investor's standard?

A. I don't know that the actuarial standard of practice recommending a reasonable range is based upon any particular fiduciary investment requirements.

Q. Are you familiar with any fiduciary investment

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A. To repeat myself, effectively, I think you are switching to unit credit. In the entry age normal method, you would have no present value of future normal costs, all of the liability is on account of past service, so there are no more three buckets, as I mentioned. There would just be the one bucket of past service.
Q. Well, in that circumstance, if you had previously been using the entry age normal cost method and the plan was terminated or frozen, you might have already included benefits based on salary increases that the pensioners never actually received, correct?
A. You've got a couple different things going there. Could I ask you to take that again from the top?
Q. Sure. So let's just focus on a situation in which a plan is frozen or terminated, okay?
A. Could we pick one, please, because there are differences.
Q. Sure. Let's focus on a situation in which the plan is frozen.
A. Okay.
Q. And in that instance, a particular pensioner who is part of that plan, under the entry age normal cost method, could have had or would have had their

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benefits accrued based on expected future salary increases, correct?
A. That would be included in the measure of the liability for the active membership.
Q. And if a plan -- if the plan was frozen and the active pensioner did not go on to receive the salary increases that were expected at the time the accruals were done under the entry age normal cost method, then those accruals would be higher than the actual benefit that that pensioner was entitled to, correct?
A. When you freeze a pension plan, you prevent the past service from generating larger benefits when salary increases occur.
Q. So in that circumstance, using the entry age normal method could have inflated the amount of liability due to the fact that it would have included future salary increases that will no longer take place due to the freezing of the plan. Is that a fair statement?
A. In an ongoing plan, the entry age method is spreading the cost of the ultimate benefit over service, which includes future salary. The act of freezing the plan prevents any future salary increases from ever entering into the formula, thus the past service benefit, which is -- you know, at every valuation

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point, some portion of your ultimate service will no longer be levered up as you work in the future, and your liability grows due to two things, really, future service and the levering up of the past service benefit based upon future salary. The plan freeze would eliminate both of those pieces.
Q. And wouldn't that have the impact of leaving the past service benefits overstated due to the fact that after the freezing, those future benefits associated with salary increase would not actually occur?
A. I'm not sure -- I mean, I'm having trouble with your question. If you have an ongoing plan, the entry age would include future salary increases, because they would be expected to occur in an ongoing plan, and their -- part of their function is that they lever up the benefit based upon past service.
If you have a frozen plan, you would not assume future salary increases. So the liability would drop. That's the impact on the member of having a frozen plan. I no longer have the ability to take my ten years of service at my whatever accrual rate and have higher salaries applied to that. Once the plan's frozen, my current salary's known and my benefit is known. The only unknown is how long am I

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going to work and when am I going to receive that benefit.
So each valuation, whether it's an ongoing plan or a frozen plan, would produce results that are appropriate for that situation.
Q. Okay. So if you have -- you have an ongoing plan, and I understand why you're saying, you know, the way that you set up the entry age normal cost method would be appropriate for the ongoing plan because you're assuming and then normalizing all of the expected future benefits, as well as the past benefits. Fair statement?
A. In an ongoing plan, we figure out all of the benefits and spread them over the entire career, yes.
Q. And if you had an ongoing plan, but then the ongoing plan, for whatever reason, elects to freeze, then my question is, wouldn't you have overstated some of the liabilities due to the fact that while the plan was ongoing, you included a series of future benefits, but then once it was frozen, those future benefits were no longer going to be included but had already been included in the entry age normal system while the plan was ongoing?
A. While the plan was ongoing, the measurement of an

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2023 going forward, correct?
A. That's my understanding.
Q. And so if the investment return is higher than predicted, that will have the impact of more money being available for the payment of pension benefits, correct?
A. More money than expected, yes.
Q. And if the investment return is higher than predicted, that will in turn allow the plan sponsors to have to pay less than anticipated, correct?
A. That's not my understanding through 2023.
Q. Fair enough. So through 2023, we'll set that aside; those payments are set according to the plan, correct?
A. That's my understanding.
Q. So then it would be payments from 2023 on, from the plan sponsors, would be less than anticipated if the investment return between today and 2023 is higher than anticipated, correct?
A. As long as there is not demographic experience which is more unfavorable than investment return is favorable.
Q. And so it could, or it should redound to the benefit of the plan sponsors to exceed the target investment return, correct?

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A. You used a word in there I'm not familiar with, redound.
Q. So it should be to the plan sponsor's benefit, in 2023 and thereafter, for the investment return to exceed the target investment return, correct?
A. Again, generally, or the City of Detroit? Which way would you like me to answer?
Q. Well, why don't we start specifically with the City of Detroit, because I asked the question going from 2023 and beyond.
A. Okay.
Q. It should be to the City of Detroit's benefit if the rate of return is exceeded, correct?
A. I would say to some extent, because my understanding is there is the potential for pension benefit restoration, which would accrue to the participants should those thresholds be hit.
Q. And for amounts above and beyond the restoration, if investment return was good enough, that would be to the city's benefit, correct?
A. I don't know the details of the restoration plan well enough to say that.
Q. Now, ultimately, the city asked you to run a variety of scenarios, including scenarios that the city asked

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you to run in 2014, that were at a 6.75 percent discount rate, correct?
A. We ran scenarios at 6.75, yes.
Q. And that 6.75 percent was not based on and did not reflect the asset allocation that you were aware of, but instead was based on a suggestion that going forward the pension systems would use a more conservative asset allocation, correct?
MR. MILLER: Object.
MR. MUTH: You can answer.
MR. MILLER: You can answer.
A. That's my understanding.
BY MR. HOWELL:
Q. But no one has ever provided you with that alternative asset allocation, right?
A. The 6.75 percent was provided as an input to our modeling.
Q. And you have not been provided with an asset allocation that produces a 6.75 percent investment return assumption, correct?
A. I have not been.
Q. Do you have an understanding of whether the city is allowed to determine what the asset allocation of the GRS or the PFRS plans will be?

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MR. MILLER: Object to form. Go ahead.
A. I don't have an understanding of the city's role.
BY MR. HOWELL:
Q. Do you have an understanding as to, in the past when asset allocations have been changed, what procedures the GRS has undertaken in order to enact those changes to the asset allocation?
A. I do not.
Q. Are you aware that the GRS has a board of trustees for that pension system?
A. Yes.
Q. Do you have an understanding as to that board of trustees' role in approving a change to the asset allocation?
A. Specifically, no.
Q. And you're aware that the PFRS has a board of trustees, as well, correct?
A. Yes.
Q. And same question. You're not aware specifically of the PFRS's board of trustees' role with respect to any suggested changes to asset allocation, are you?
A. Specifically, no.
MR. HOWELL: I've been going a while. Do you want to take maybe a lunch break at this point?

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task force wanted you to perform this valuation?
A. My understanding was to replicate the valuation done by the system actuary.
Q. And that's Gabriel Roeder Smith?
A. Gabriel Roeder Smith, yes.
Q. And can you describe for me kind of the role of replication, just generally, not specific to this instance, but the role of performing replications as part of your usual responsibilities at Milliman?
A. Okay. A replication can be internal or external. Some firms such as Milliman will have a second team do evaluation over again, and supposing the second team does the valuation and winds up with results similar to the first, it's a check on your, the quality of your work.
Earlier I had mentioned that we do get hired to do actuarial audits of work done by outside firms, and we have been audited ourselves, and sometimes those requests, not always, but sometimes include dual replication.
Q. Are there other uses for replication beyond kind of being a quality check or being an audit of a prior valuation?
A. Not in and of the replication itself, I would say.

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Q. And the scenarios that were provided to Milliman to do -- that resulted in the April 17, 2014, letters, those scenarios were provided by the city, correct?
A. When you mention scenarios, could you please be --
Q. Absolutely?
A. -- particular?
Q. So, for instance, the use of the 7.9 percent and 6.75 percent alternative investment rates for use in calculating alternative AALs were provided by the city, correct?
A. That is correct.
Q. And when you performed this valuation of the actuarial accrued liability for the benefits provided by the general retirement system of the city of Detroit, this was done using the entry age normal cost method, correct?
A. That is correct.
Q. And when you performed this valuation of the actuarial accrued liability for the benefits provided by the GRS, you did not at that time contemplate this as a frozen plan scenario, correct?
A. This request was an ongoing plan valuation.
Q. Thank you. That's a much better question than I asked. So similarly for PFRS, when you, when you

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calculated -- or when you valued the actuarial accrued liability for the benefits provided by PFRS, you used the entry age normal cost method, correct?
A. That is correct.
Q. And when you calculated the actuarial accrued liability for the benefits provided by the PFRS, you did so with the assumption that the plan would be ongoing, correct?
A. In the April 17th letter in Exhibit 8, yes.
Q. And as part of the assumptions for the valuations done for both GRS and PFRS, there was an assumption for wage inflation and for increases in compensation, correct?
A. That is correct.
Q. And can you just walk me through at a high level kind of the methodology that went into valuing the actuarial accrued liability as of June 30, 2013? And we can just take the GRS, for example.
A. Okay. It began with collecting census data from the retirement system. Various files were provided and various edits needed to be made to fill in blanks and correct inconsistent data, et cetera.
There are a set of plan provisions that determine the benefits that the participants will --

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are receiving and/or will receive if they're not in receipt as of yet. To project benefit payments, there are actuarial assumptions applied, and our output is a stream of expected future benefit payments in each future year until the last participant has received their last dollar.
Q. And then you discount those expected stream of future payments by the assumed investment rate to present value that stream of benefits, correct?
A. That's correct.
Q. And you did it once using 7.9 percent and once using 6.75 percent?
A. Correct.
Q. And the only difference in that investment return rate for the PFRS is you did one scenario for PFRS at 8 percent and one at 6.75 percent, correct?
A. Correct.
Q. And if you wanted to go from the valuation of the actuarial accrued liability to the valuation of the unfunded actuarial accrued liability, what steps would you take to do that?
A. Well, like I say, we don't directly value the unfunded liability, the subtraction. So once we have the liability, we would remove the assets, and the

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whether you believe that you have a professional obligation to recommend what you believe is reasonable.
A. In the absence of a mandated assumption, yes, we would recommend what was reasonable, what we felt was reasonable.
MR. WAGNER: Let's mark this as 13.
MARKED FOR IDENTIFICATION:
DEPOSITION EXHIBIT 13
2:42 p.m.
BY MR. WAGNER:
Q. Sir, can you identify this exhibit?
A. It's an email.
Q. And who wrote the email?
A. The top of the chain is me.
MR. BALL: Can you give us specifically the Bates numbers he's on?
MR. WAGNER: Oh, I'm sorry, POA600119, July 13th email from Glenn Bowen.
BY MR. WAGNER:
Q. And you state in this email, quote: I think we have a professional obligation to recommend what we believe is reasonable, but if we are mandated to use assumptions/methods by the client, our duty is

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disclosure, as Scott illustrated below.
Is that a fair statement of what you believe your obligation is here?
A. Yes, it is.
Q. Okay. And are you confident in the numbers that Milliman has developed in connection with its assignment here?
A. Which numbers are you referring to, in particular?
Q. The numbers in the November 4 letters and the April 17 letters that we saw earlier today.
A. November 4th was investment return assumption. April 17th was replication valuations of the two systems, which turned out to be very close to what the system actuary produced. So I would say I have confidence in our development of those numbers.
Q. And do you stand by the analysis that Milliman performed in those two letters?
A. Yes.
Q. Now, just a couple of general questions. What -- how do you define actuarial -- is there a term actuarial science?
A. It's two words put together, but you can call it a term.
Q. How do you define actuarial science?

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A. I would say that is a very broad term which encompasses all of actuarial practice and research.
Q. Is it a precise science?
A. I would say from the perspective of once inputs are set, the calculation process should be precise in terms of setting inputs, developing assumptions, monitoring experience. You have a set of data to review, and you'll draw your best conclusions based on that data, and another actuary could reasonably conclusions that differ from yours.
Q. You were asked some questions about entry age normal, and I just want to clarify. And again, I apologize if I'm going over ground that Mr. Howell covered, but entry age normal -- strike that.
Does entry age normal make a calculation of benefits for each individual participant?
A. There are two types of entry age normal, an aggregate and an individual. The individual entry age normal calculation values each participant.
Q. Okay. And does entry age normal make assumptions about future salary increases?
A. In a valuation of a plan where future salary increases are expected to occur and be incorporated into the benefit formula, yes.

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Q. And does entry age normal make assumptions about future years of service in that scenario?
A. Entry age normal accrued liability does not include future service, but one of the building blocks on the way there does incorporate future service.
Q. And does entry age normal also make assumptions about inflation?
A. Let me actually just step back in response to a couple of your questions. Entry age normal is not making assumptions. Entry age normal is looking for inputs. The actuary would make assumptions that go into the method. Entry age normal is a methodology to use.
Within entry age normal, you would not directly input inflation, but it's present within other assumptions you use in the valuation process.
Q. And would entry age normal also include benefits that have not as yet vested?
A. In the measurement of the accrued liability, you would have active participants with a liability, whether or not vested.
Q. And that's another way of saying there are probably instances in the calculation where their benefits have not as yet vested?
A. Yes.

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Q. But entry age normal tries to assess overall what the liability of the pension in question will be, given a set of assumptions?
A. Again, entry age normal is a method, but the valuation process that uses entry age normal is after that, yes.
Q. Now, let's go back to the November 2004 letter. Give me a second.
MR. BALL: I think you misspoke.
MR. WAGNER: I'm sorry?
MR. BALL: You said 2004. I think you meant 2013.
MR. WAGNER: I'm sorry, 2013, the November 4, 2013, letter.
BY MR. WAGNER:
Q. It's Exhibit -- do you have it there, sir?
A. I have 2 and 3.
Q. Right. Now, can you turn to page 2 of either letter? I'm looking at the GRS letter. Let's use that one.
A. Okay.
Q. The bottom of the page, this is -- which exhibit is it there?
A. I have Exhibit 2.
Q. Okay. You state, or Milliman states at the bottom:
Milliman develops long-term capital

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market-expected returns based on current yields and valuation levels, published surveys of expert forecasts or real GDP growth and inflation, and historical risk measures of asset class return volatility and covariance. These capital market assumptions underlie the building block method used in our expected return based on the guidance in ASOP 27.
Do you see that?
A. I do.
Q. What are the -- so am I right that in coming up with the 7.2 discount rate, you used the building block method?
A. That is correct.
Q. And what are the three inputs to the building block method?
A. We have significantly more than three inputs.
Q. Okay.
A. I'm not sure what you're --
Q. Okay.
A. -- what framework you're asking.
Q. Am I right that investment return based on asset allocation is one input, or is an input?
A. The building block method is used to arrive at the investment return assumption.

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Q. Okay. And do you use the real rate of return based on the asset allocation in a particular plan?
A. Each asset class will have a gross rate of return and a rate of return net of inflation.
Q. And does the calculation also take into account inflation?
A. Yes, it does.
Q. And does it also take into account expenses?
A. The calculation of the gross return does not take into account expenses, but ultimately, through the expression of the interest rate or the application of loads in the valuation on top of the costs, investment expenses and administrative expenses need to be accounted for.
Q. If you had to reduce the calculation to a -- to an equation, would you be able to do it?
MR. MUTH: Which calculation?
MR. WAGNER: I'm sorry?
MR. MUTH: Which calculation?
MR. WAGNER: A calculation of the elements of the investment return.
A. We have quite a extensive model which is used to determine that. So I wouldn't say it was -- it could be reduced to a simple equation you could write up.

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BY MR. WAGNER:
Q. All right, but would you take the real rate of -- would you add the real rate of return plus inflation?
A. I'll say that is a, that is a way to convey the result. That's not the way the result is developed.
Q. Okay. But that's a way to convey the result?
A. It's a way to convey the final results, yes.
Q. All right. And then you would subtract out the expenses, correct?
A. You have a choice of subtracting out the expenses from the return or adding explicit expenses in when doing your funding calculation, so that is a -- call it a matter of style, if you will. They need to be accounted for in some fashion.
Q. Now, in the November -- in the calculations that are set out in the November 4, 2013, letters, am I right the rate of inflation you used was two-and-a-half percent?
A. I can look in the letter, but I believe that's the case.
Q. Now, you came up with a figure of 7.2 percent using an inflation rate of two-and-a-half percent, right?
A. Yes.
Q. If the inflation rate were three percent, am I right

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the rate of 7.2 percent, with an inflation rate of 2.5 percent?

MR. MUTH: Object to the form.

BY MR. WAGNER:

Q. Does that trouble you?

A. The short answer is, no, it doesn't trouble me.

Q. Why not?

A. Because you're conflating two separate issues.

Q. Can you turn to page 4 again, the appendix. You see the rates being used by the other Michigan pension funds is eight percent. Do you see that?

A. I see that, yes.

Q. And if the rate is at eight percent, that means that less funding is required, am I right?

A. Less current funding is required than if a lower discount rate were used currently.

Q. Do you have any quarrel with the rates that the other Michigan pension funds are using?

A. I don't know what their asset allocations are.

Q. You don't know what the asset allocation is for the city at 6.75, do you?

A. The assignment we received to use 6.75 was not based on a particular asset allocation.

Q. Is that another way of saying that you don't know what

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the asset allocation is for the 6.75 percent?

A. Yes.

Q. Is Milliman out now trying to come up with an asset allocation that matches the 6.75 percent? Is that what's going on now?

A. I believe our investment consultants have been tasked to look at asset allocations to match lower investment returns.

Q. So they have, in effect, been asked to back into the 6.75 percent, is that correct?

MR. MILLER: Object to form.

BY MR. WAGNER:

Q. You can answer.

A. I mean, the way it's characterized, back in, implies there's only one direction. The city specified a lower discount rate, and, to my understanding, our investment consultants were asked, what would such a portfolio look like.

Q. Let me just -- what you do as an actuary is you look at an asset allocation and you come up with a discount rate, correct?

MR. MUTH: Object to the form.

A. Well, I do many things as an actuary, but in terms of --

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BY MR. WAGNER:

Q. Okay, that's one of the things you do?

A. When, yes, we will look -- yes, that's one of the things we do.

Q. Okay, but here the city gave you a discount rate, and now somebody at Milliman is trying to come up with the asset mix to match the discount rate?

MR. MILLER: Object to form.

BY MR. WAGNER:

Q. You can answer.

A. I believe the question that was asked to our investment consultant, as I previously stated, if we were going to invest more conservatively, what would that portfolio look like.

Q. So you got -- in this instance you got the discount rate first, and now someone's trying to come up with the asset portfolio, correct?

A. That's the order of operations in this instance.

Q. Does that trouble you?

A. No.

Q. Why not?

A. As I stated, the city's request was if we had a lower discount rate, which meant more conservative investments, what would that portfolio look like.

GLENN BOWEN

We're answering the question.

Q. Now, the conclusion in the NASRA brief states:

Since 1987, a period that has included three economic recessions and four years when median public pension fund investment returns were negative (including the 2008 decline), public pension funds have exceeded their assumed rates of investment return. Changes in economic and financial conditions are causing many public plans to reconsider their investment return assumption. Such a consideration must remain consistent with the long time frame under which plans operate.

Do you see that?

A. I do.

Q. And do you agree with those statements?

A. I believe each statement is accurate, yes.

Q. Are there -- aside from the building block method, are there other methods to, that actuaries may use to calculate a projected rate of return for a public pension fund?

A. The other method specifically mentioned in ASOP 27 is a dividend discount model.

Q. What about peer comparison, is that an appropriate method to use?

GLENN BOWEN

calls for a legal conclusion.
BY MR. WAGNER:
Q. You can answer.
A. I was going to say pretty much the same thing, so I don't know the bylaws that dictated what got credited and what didn't.
Q. All right. But am I right that you made calculations of the amount of excess interests, did you not? When I say you, I mean Milliman.
A. That's not correct.
Q. Did Milliman make a calculation of the excess interest amount attributable to ASF?
A. No.
MR. WAGNER: Mark this as the next exhibit.
MARKED FOR IDENTIFICATION:
DEPOSITION EXHIBIT 19
3:45 p.m.
MR. BALL: Could you identify the exhibit?
MR. WAGNER: I'm sorry, June 10, 2014, Milliman letter, POA700464.
MR. BALL: What is the exhibit?
MR. WAGNER: 700464.
BY MR. WAGNER:
Q. What is Exhibit 19?

GLENN BOWEN

A. It is a letter labeled DGRS estimated employer contributions required in 2014-2015 to 2022-2023 to have 70 percent funded status in 2023 (for the defined benefit portion of system) and estimated funded status in 2033 and 2043 reflecting city-specified employer contributions beginning 2023-2024 under an annuity savings fund recoupment (dual cap) at 4.5 percent benefit reduction scenario with a 6.75 investment return assumption (net of both investment and administrative expenses).
Q. And did you sign this letter?
A. Yes, I did.
Q. What is the purpose of the letter?
A. At the risk of repeating the entire title that I read, we were asked to impute employer contributions under a series of specified scenarios.
Q. Now, on page 4 of the letter, there's a column that says ASF recruitment. Do you see that?
A. I do.
Q. And there's a graph -- there's a chart in the middle of the page. Do you see that?
A. I do.
Q. And there's a column for excess interest amount. Do you see that?

GLENN BOWEN

A. I yes.
Q. And that amount here is 340 million. Do you see that?
A. I do.
Q. What does that figure represent?
A. For ASF records in the file that we were provided that matched against the 2013 valuation census data, that's the summation of the excess interest amounts for each individual.
Q. And in what sense is this excess interest?
A. In the sense that it was deemed excess interest when provided to us by the city.
Q. Do you have an understanding -- why were you asked to provide this letter?
A. This letter was at a high level determination of estimated employer contributions to meet a funded status given the various other scenarios that are listed in the title.
Q. Who calculated the amount of excess interest under ASF?
A. To my knowledge, it was either/or Ernst & Young and Conway MacKenzie who did that historical research.
Q. Okay. So you were just -- were you just given -- was the number dictated to Milliman?
A. We were given a file.

GLENN BOWEN

Q. And I'm sorry if I asked this, but what's your understanding as to why this is deemed excess interest?
A. It was deemed to be larger than what should have been paid.
Q. And when you say "what should have been paid," do you mean what should have been paid under the GRS plan?
MR. MONTGOMERY: Objection to the extent it calls for a legal conclusion.
BY MR. WAGNER:
Q. You can answer.
A. I've answered you as accurately as I can. It was provided to us and it was deemed to be excess, and that's the extent of my knowledge.
Q. And do you have an understanding that -- strike that.
On the next page there's a column that says capped recoupment amount. Do you see that?
A. I do.
Q. And what does that figure represent?
A. I'll need a moment.
Q. Sure.
A. Okay, on the bottom of page 467, the final paragraph says:
For this analysis, the maximum recoupment

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amount for an individual member was capped at 20 percent of the highest ASF balance during the excess interest determination period. Applying the cap yields the recoupment amounts shown in the following table.

And the application of that cap on the recoupment amount provided a lower, lower number than the original excess interest amount.

Q. Well, you keep using the word "recoupment." What's that a reference to?

A. That is a reference to the city's request that we model a, I'll say a recoupment, a recapture of excess amounts, the reductions to accounts and/or annuities as described in the subsequent page or maybe two pages of the letter.

Q. Do you have an understanding why the city is looking to recoup amounts?

A. Because they deem them to be in excess.

Q. In excess of what?

A. What they thought should have been credited.

Q. If these amounts were in excess of what should have been credited, am I right that the billion 879 that we saw for GRS should be reduced by the amount of the excess, because they're not really due?

GLENN BOWEN

MS. GREEN: Objection.

MR. MONTGOMERY: Objection to the extent that it calls for a legal conclusion.

BY MR. WAGNER:

Q. You can answer.

MR. MUTH: Same objection.

BY MR. WAGNER:

Q. Let me rephrase the question to meet the various objections.

Am I right that as an actuarial matter, if the amounts of ASF were in excess of what should have been credited, then the excess should reduce the amount of liability of GRS?

MR. MUTH: Object to the form.

A. I have to admit, I didn't follow the entire presentation there.

BY MR. WAGNER:

Q. Okay. I'm sorry.

A. I apologize myself.

Q. We saw the calculation from the May 5 and April 17 letters for GRS liability of a billion 879, correct?

A. We saw that.

Q. And we saw that a component of the billion 879 was ASF, correct?

GLENN BOWEN

A. Correct.

Q. And we saw -- and we see from these other letters and from your testimony that about 350 million dollars of ASF was something in excess of what's provided for under the plan, correct?

MR. MONTGOMERY: Objection to the extent it calls for a legal conclusion.

BY MR. WAGNER:

Q. You can answer.

A. Noted in the letter here is 340.5 million for records that match the valuation census data.

Q. Okay. So the, so the amount that's really due on the GRS is not the billion -- or the liability is not really a billion 879, but it's really a billion 879 less the 340 million dollars in excess ASF, is it not?

MS. GREEN: Object to form.

MR. MILLER: Objection.

MR. MONTGOMERY: Object as to form and calling for a legal conclusion.

BY MR. WAGNER:

Q. From an actuarial point of view. Isn't the actual liability of GRS the billion 879, less this excess ASF?

MR. MUTH: Same objection.

GLENN BOWEN

MR. MILLER: Same objection.

BY MR. WAGNER:

Q. You can answer.

A. My answer would be we've written dozens of letters this year, and you've picked a selection few and showed me one number in a 150-page document. So I can't say without having time to review that document that we've done things apples to apples and that the letters you're giving me now are underlying those analyses. There's a lot of numbers here.

Q. Well, to the extent the ASF is included in the billion 879, it shouldn't really be there, should it, from an actuarial point of view?

MR. MUTH: Object to the form.

A. From an actuarial point of view, I did not read the description of what the billion 879 is meant to indicate in the document nor read the rest of the document.

BY MR. WAGNER:

Q. Okay. Let me, let me rephrase the question, because I think it's an important point.

If you were calculating from an actuarial point of view the amount of actuarial liability for a pension fund, you would include the amounts that are